ABSTRACT OF THE DISCLOSURE

In accordance with the present invention, there is provided a workstation or other heavy object which is easily moved, yet steady and stable when parked. Underneath this object is attached a multiple air-bearing device having a backplate, a membrane which is selectively bonded to the backplate, and a stencil and dimple which further prevent separation of the membrane from the backplate and which also provide a bearing surface for the workstation to rest with stability against the floor. Pressurized air is introduced through the base and behind the unbonded portions of the membrane, inflating the membrane and creating lift, and additionally forming a pneumatic seal against the floor. Air passages through the membrane and within the sealed footprint allow air to flow into and through the region between the membrane and the floor, creating an air-lubricated bearing that allows nearly frictionless motion of the heavy object.